

CLAIMS

WHAT IS CLAIMED IS:

1. A textile-based amusement article to be played with or retrieved by, or for enticing a domestic animal comprising:

an outer textile casing formed of a tough chew-resistant material defining a shape in the form of a small article for luring or being fetched by a

5 domestic animal;

an inner filling; and

at least one of the outer textile casing and the inner filling having an effective microbe-inhibiting agent or property.

2. A textile-based amusement article according to claim 1 wherein the outer textile casing is made from fiber selected from the group consisting of acrylics, polyester, nylon, olefin polymers, triacetate polymers, rubber and spandex.

3. A textile-based amusement article according to claim 2 wherein the inner filling comprises at least one of a foam, a particulate and a fibrous filling.

4. A textile-based amusement article according to claim 3 wherein the inner filling comprises a fibrous filling selected from the group consisting of polyolefin, acrylic, nylon, polyester, polyurethane, polyethylene terephthalate, cellulose acetate, triacetate resin fibers and blends thereof.

5. A textile-based amusement article according to claim 4 wherein the fibrous filling is a blend of fibers, only a portion of which have a microbe-cidal agent applied thereto or incorporated therein.

6. A textile-based amusement article according to claim 5 wherein the microbe-inhibiting fiber volume fraction in the containment defined by the outer textile casing is between 0.3 and 4.5%.

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7. A textile-based amusement article according to claim 6 wherein the at least one odor controlling agent is selected from at least one of an odor masking, an odor modifying, and an odor absorbing agent.
8. A textile-based amusement article according to claim 2 wherein the outer textile fabric is treated with a compound to impart at least one of low surface energy, non-hydrophilic properties, antistatic properties and antiadhesion properties.
9. A textile-based amusement article according to claim 2 wherein the outer textile casing comprises an outer fabric layer and the microbe-inhibiting agent or property comprises a microbe-impenetrable laminate on an inner surface of the outer fabric layer.
10. A textile-based amusement article according to claim 9 wherein the microbe-impenetrable laminate comprises a thermoplastic film or latex polymer.
11. A textile-based amusement article according to claim 10 wherein the thermoplastic film or latex polymer have applied thereto or incorporated therein a microbe-cidal agent.
12. A textile-based amusement article according to claim 1 wherein the weight of the article is less than 250 grams.
13. A textile-based amusement article according to claim 1 wherein the outer textile casing comprises a high pile component attached to a backing material to, in turn, form an artificial fleece.
14. A textile-based amusement article according to claim 1 wherein the microbe-inhibiting agent or property is selected from at least one of microbe-cidal, microbe-starving and microbe-impenetrable agents.

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15. A textile-based amusement article according to claim 1 wherein the inner filling comprises a fibrous filling selected from the group consisting of polyolefin, acrylic, nylon, polyester, polyurethane, polyethylene terephthalate, cellulose acetate, triacetate resin fibers and blends thereof; and wherein the microbe-inhibiting agent and property comprises a microbe-cidal compound which is less than fully bonded to at least a portion of the fibers in the filling and migrates to form a zone of inhibition.
16. A textile-based amusement article according to claim 15 wherein the microbe-inhibiting agent or property is also present in the outer casing.
17. A textile-based amusement article according to claim 1 and further comprising an odor-absorbing agent selected from at least one of an activated carbon and a zeolite compound.
18. A textile-based amusement article according to claim 1 wherein at least one of the outer casing and the inner filling is impregnated with a flame resistant modacrylic polymer.
19. An amusement article to be played with or retrieved by, or for enticing a domestic animal comprising:
a unitary piece of non-woven material defining a shape in the form of a small article for luring or being fetched by the domestic animal; and
a microbe-inhibiting agent applied to or incorporated within at least a portion of said unitary piece of material.
20. An amusement article according to claim 19 wherein the article is in the form of one of an animal, a bone, a heart, and a geometric shape.
21. An amusement article according to claim 20 wherein the non-woven material comprises a fibrous batting selected from the group consisting of polyolefin,

acrylic, nylon, polyester, polyurethane, polyethylene terephthalate, cellulose acetate, triacetate resin fibers and blends thereof.

22. An amusement article according to claim 21 wherein the microbe-inhibiting agent is present from 0.001 to 10 percent by weight of the unitary piece of material

23. A process for imparting microbe-inhibiting properties to a pet article having an outer textile casing formed of a tough, chew-resistant material and defining a shape in the form of a small article for luring or being fetched by a domestic animal, the step of applying to or incorporating within the outer casing an effective amount of a microbe-inhibiting agent.

24. A process according to claim 23 wherein the textile casing comprises fibers selected from the group consisting of acrylics, polyester, nylon, olefin polymers, triacetate, rubber and spandex fibers.

25. A process according to claim 24 wherein the pet article further comprises an inner filling which comprises at least one of foam, a particulate and a fibrous filling, and the microbe-inhibiting agent is also applied to or incorporated within at least a portion of the filling.

26. A process according to claim 24 wherein the fibrous filling is selected from the group consisting of polyolefin, acrylic, nylon, polyester, polyurethane, polyethylene terephthalate, cellulose acetate, triacetate resin fibers and blends thereof.

27. A process according to claim 26 and further comprising the step of applying or incorporating the microbe-cidal agent to only a portion of the fibers in the fibrous filling and then encasing the fibrous filling with the outer textile casing.

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28. A process according to claim 27 and further comprising the step of spinning the portion of fibers and the applying or incorporating step comprises adding the microbe-cidal agent to the portion of the fibers during the spinning step.

29. A process according to claim 28 and further comprising the step of compacting the fibrous filling between the applying and stuffing step for a time and at a temperature sufficient to diffuse at least a portion of the microbe-cidal agent from the portion of the fibrous filling with the microbe-cidal agent to a second portion of the fibrous filling without the microbe-cidal agent.

30. A process according to claim 28 wherein the compacting step comprises compacting the fibrous filling at least 10% but less than 40%.

31. A process according to claim 30 wherein the degree of compactment of the fibrous filling is at least 14%.

32. A process for imparting microbe-inhibiting properties to a pet article having an outer textile casing formed of a tough, chew-resistant material and defining a shape in the form of a small article for luring or being fetched by a domestic animal and having an inner filling of at least one of a foam, a particulate, and a fibrous filling, comprising the step of:

applying or incorporating a microbe-inhibiting agent to at least one of the outer textile casing and the filling.

33. A process according to claim 32 wherein the outer casing is a fabric selected from acrylics, polyester, nylon, olefin polymers, triacetate, rubber and spandex fibers.

34. A process according to claim 32 wherein the fibrous filling is selected from the group consisting of polyolefin, acrylic, nylon, polyester, polyurethane, polyethylene terephthalate, cellulose acetate, triacetate resin fibers and blends thereof.

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35. A process according to claim 34 and further comprising the step of applying or incorporating the microbe-cidal agent to only a portion of the fibers in the fibrous filling and then encasing the fibrous filling with the outer textile casing.

36. A process according to claim 35 and further comprising the step of spinning the portion of fibers and the applying or incorporating step comprises adding the microbe-cidal agent to the portion of the fibers during the spinning step.

37. A process according to claim 36 and further comprising the step of compacting the fibrous filling between the applying or incorporating and stuffing step for a time and at a temperature sufficient to diffuse at least a portion of the microbe-cidal agent from the portion of the fibrous filling with the microbe-cidal agent to a second portion of the fibrous filling without the microbe-cidal agent.

38. A process according to claim 37 wherein the compacting step comprises compacting the fibrous mat at least 10% but less than 40%.

39. A process according to claim 38 wherein the degree of compactment of the fibrous filling is at least 14%.

40. An amusement article to be played with or retrieved by, or for enticing a domestic animal comprising:

a unitary piece of non-woven material defining a shape in the form of a small article for luring or being fetched by the domestic animal;

the non-woven material comprising a high loft, low-density fibrous material which is held together by bonding the fibers together.

41. An amusement article according to claim 40 wherein the fibers comprise a low-temperature coating or sheath and the bonding takes place by heating the fibers to melt the coating or sheath and melt-bond the fibers together

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42. An amusement article according to claim 40 wherein the fibers are adhesively bonded together.

43. An amusement article according to claim 40 wherein the unitary piece of non-woven material has an outer perimeter and the non-woven material is sealed at the outer perimeter.

44. An amusement article according to claim 43 wherein the non-woven material is sealed at the perimeter by local heating, stitching, serging or tacking.

45. A textile-based amusement article to be played with, enticed or retrieved by a domestic animal comprising:

an outer textile casing formed of a tough, chew-resistant material defining a shape in the form of a small article for luring or being fetched by the domestic animal and comprising a high-pile component attached to a backing material to form an artificial fleece, the material formed in two layers sewn together at the edges with the high-pile component outwardly; and an effective amount of a microbe-cidal agent applied to the textile casing.

246. A textile-based amusement article according to claim 45 wherein the textile casing comprises fibers selected from the group consisting of acrylics, polyester, nylon, olefin polymers, triacetate, rubber and spandex fibers.

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